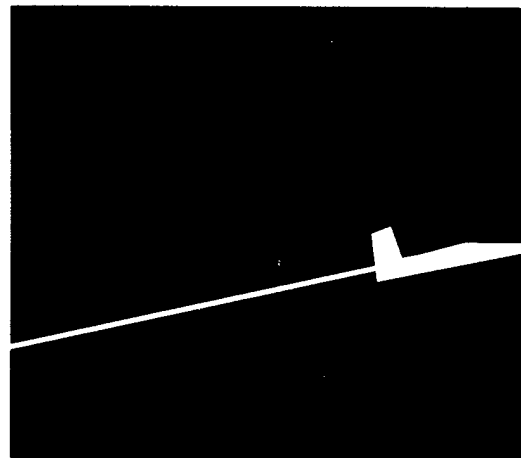


SID12196



**SIDAC**

Supportability Investment Decision Analysis Center

Contract No. F33657-92-D-2055/0066  
CDRL A009, Data Item DI-MGMT-80057  
Report No. SID/MR-94/0060

(Unclassified)

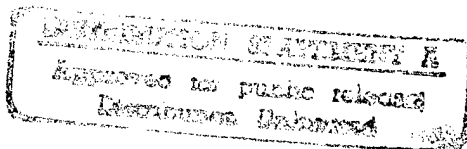
## **TASK ASSIGNMENT PLAN**

for

**Create PC Version of ABACUS**

Prepared for

HQ USAF/LGSI  
1030 Air Force  
The Pentagon  
Washington, DC 20330-1030



21 December 1994

Prepared by

Synergy, Inc.  
1763 Columbia Road, NW  
Washington, DC 20009-2834

Submitted by

SIDAC  
5100 Springfield Pike  
Dayton, Ohio 45431

19970128 075

DDIC QUALITY INSPECTED 1

<b>REPORT DOCUMENTATION PAGE</b>			<i>Form Approved</i> OMB No. 0704-0188	
Public reporting burden for this collection of information is estimated to average 1 hour per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Washington Headquarters Services, Directorate for Information Operations and Reports, 1213 Jefferson Davis Highway, Suite 1204, Arlington, VA 22202-4302, and to the Office of Management and Budget. Paperwork Reduction Project (0704-0188), Washington, DC 20503.				
<b>1. AGENCY USE ONLY (Leave blank)</b>		<b>2. REPORT DATE</b> 22 Dec94	<b>3. REPORT TYPE AND DATES COVERED</b> Final	
<b>4. TITLE AND SUBTITLE</b>  Task Assignment Plan for Create PC Version of ABACUS			<b>5. FUNDING NUMBERS</b>  Contract No: F33657-92-D-2055  Delivery No: 0066	
<b>6. AUTHOR(S)</b>  Laura Loverro Susan Gantz				
<b>7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES)</b>  Synergy 1763 Columbia Rd., NW Washington, DC 20009			<b>8. PERFORMING ORGANIZATION REPORT NUMBER</b>  SID12196	
<b>9. SPONSORING/MONITORING AGENCY NAME(S) AND ADDRESS(ES)</b>  HQ USAF/LGSI 1030 Air Force Pentagon Washington, DC 20330-1030			<b>10. SPONSORING/MONITORING AGENCY REPORT NUMBER</b>  SID/MR-94/0060	
<b>11. SUPPLEMENTARY NOTES</b>				
<b>12a. DISTRIBUTION/AVAILABILITY STATEMENT</b>  Approved for Public Release; Distribution is Unlimited			<b>12b. DISTRIBUTION CODE</b>  A	
<b>13. ABSTRACT (Maximum 200 words)</b>  The increased role of Air Logistics Centers in all phases of DBOF budget development is critical to making the best weapon system support decisions. To this end, the Automated Budget Analysis/Centralized User System (ABACUS) must be made available to DBOF analysts at the ALCs. To provide ABACUS to these new users in the most cost effective way, it must first be converted to a PC-based environment.  The objective of this task is to cover the analysis and programming required to convert the ABACUS to a PC-based environment. This support will be provided directly to the Aircraft/Missile Support Division and to other users of ABACUS.  This document explains the goals, objectives, and technical approach of the task explained above.				
<b>14. SUBJECT TERMS</b>  Task goals and objectives, technical approach of project, project schedule and milestones, scheduled deliverables, project staffing and experience.			<b>15. NUMBER OF PAGES</b>	
			<b>16. PRICE CODE</b>	
<b>17. SECURITY CLASSIFICATION OF REPORT</b>  UNCLASSIFIED	<b>18. SECURITY CLASSIFICATION OF THIS PAGE</b>  UNCLASSIFIED	<b>19. SECURITY CLASSIFICATION OF ABSTRACT</b>  UNCLASSIFIED	<b>20. LIMITATION OF ABSTRACT</b>	

Contract Number F33657-92-D-2055  
SIDAC Task Number 85, D.O. 0066  
CDRL A009, Data Item No. DI-MGMT-80057

(Unclassified)

**Task Assignment Plan**  
**on**  
**Create PC Version of ABACUS**

Prepared for

HQ USAF/LGSI  
1030 Air Force  
The Pentagon  
Washington, DC 20330-1030

21 December 1994

Prepared by

Synergy, Inc.  
1763 Columbia Road, NW  
Washington, DC 20009-2834

Submitted by

SIDAC  
5100 Springfield Pike, Suite 120  
Dayton, Ohio 45431-1231

## **Task Assignment Plan on Create PC Version of ABACUS**

### **Introduction**

The mission of the Aircraft/Missile Support Division is to support the Defense Business Operations Fund (DBOF) budget process by developing budget requirements from a functional standpoint, defending the budget to the Office of the Secretary of Defense (OSD) and to Congress, and overseeing the execution of the budget. AF/LGSY works hand-in-hand with the Secretary of the Air Force, Financial Management (SAF/FM) community in this process. To accomplish its mission, the budget development process must be responsive, flexible, and accurate so that the Aircraft/Missile Support Division can respond to questions and challenges from OSD and Congress. The inability to respond adequately to these questions could degrade the ability of the Supply and Maintenance communities to support the USAF's peace and war missions.

The increased role of Air Logistics Centers in all phases of DBOF budget development is critical to making the best weapon system support decisions. To this end, the Automated Budget Analysis/Centralized User System (ABACUS) must be made available to DBOF analysts at the ALCs. To provide ABACUS to these new users in the most cost effective way, it must first be converted to a PC-based environment.

### **Goals and Objectives**

The objective of this task is to cover the analysis and programming required to convert the ABACUS to a PC-based environment. This support will be provided directly to the Aircraft/Missile Support Division and to other users of ABACUS.

### **Technical Approach**

The conversion of ABACUS-1 to ABACUS-2, which will operate in a PC environment, will be accomplished by porting and converting existing code where possible and by redesigning parts of the system that cannot be ported. This process will be different for each component of the system and will follow closely recommendations made in a previous study.

For the user interface, the character-based interface used in ABACUS-1 was unique to the development platform. It will be replaced in ABACUS-2 by a new interface built using PowerSoft's PowerBuilder, a Graphical User Interface (GUI) tool used to develop client/server applications. The starting point will be the prototype interface built in an earlier task. This interface will be refined to meet user needs by an iterative process called Rapid Application Development, which involves user interaction and continuous development.

Another component of ABACUS-2 is the data base itself. The ABACUS-1 data base will be ported to a PC and converted to run under the chosen DBMS, Sybase. Some limited redesign will be accomplished in this phase to take advantage of numerous new capabilities available for increasing data base performance. In addition, the data base will be documented and updated using data modeling techniques and CASE tools.

The report component of ABACUS-1 will be converted from Unix C in the current environment to Borland C++ in the ABACUS-2 environment. Again, capabilities that are available to increase

performance and maintainability will be used to improve this part of the system, but increased functionality will not be provided.

In terms of ABACUS-2 documentation, several improvements will also be made. An on-line help system, which is integrated with the End User Manual, will be built. Additionally, the Report Linkages, currently provided only in hard copy format, will be made available on-line to users.

### **Inputs**

Synergy requires access to ABACUS-2 users for demonstrations and to provide feedback on system functionality. In addition, the government must provide data base servers, including hardware and software, to be placed on-site at SAF/FMBMR and at HQ AFMC/FM. Users of ABACUS must have compatible versions of commercially available software, including the most up-to-date versions of MS Word and MS Excel, both of which will be called by ABACUS to provide for word processing and spreadsheet capabilities. Finally, all communications infrastructure required to support the client/server version of ABACUS must be provided by the government. This includes compatible LANs to access local servers, Wide Area Networks (WANs) to support data transfer, and phone lines and modems required for emergency access and maintenance of remote servers.

### **Project Schedule and Milestones**

Table 1 provides a project timeline for this task order.

*Table 1. Project Timeline*

<b>DELIVERABLE</b>	<b>DUE DATE</b>
Task Assignment Plan (A009)	16 December 1994
Contractor's Progress Status and Management Report (A004)	Monthly
Technical Report/Study Services (A001)	18 September 1995
Software Programmers Manual (A005)	18 September 1995
Software Users Manual (A006)	18 September 1995

### **Deliverables**

The following documents will be delivered as part of this project.

Task Assignment Plan (CDRL A009) — The Task Assignment Plan establishes the goals and technical approach to be used in this project.

Contractor's Progress Status and Management Report (CDRL A004) — This monthly report will inform the SIDAC COTR of the progress on this project.

Technical Report/Study Services (CDRL A001) — The Technical Report will document the project activities and analysis results in the area of interactive DBOF pricing.

Software Programmers Manual (CDRL A005) — The Software Programmers Manual will be provided for the PC-based version of ABACUS to allow a third party to modify the software without help from the original programmer.

Software Users Manual (CDRL A006) — The Software Users Manual will be provided for the PC-based version of ABACUS to support the ABACUS user.

### **Project Staffing and Experience**

The key workers on this task include Ms. Susan Gantz, Mr. Kevin McCool, Ms. Sandra Cihlar, and Mr. Phil Sanders. These personnel have worked on the ABACUS system for the past 3 years. Ms. Gantz, the lead analyst, has a graduate degree in economics and 10 years of experience working in logistics and financial analysis for the Air Force. Mr. McCool, the lead programmer, has a graduate degree in Computer Science and 10 years of experience in his field. He specializes in designing and implementing data base management systems. Ms. Cihlar, also a programmer, has 15 years of experience in her field. She specializes in data base management systems, testing, and quality control. Mr. Sanders, who has a background in Mathematics and Computer Science, serves as the primary programmer/analyst responsible for maintaining the current ABACUS system and is intimately familiar with the system. Mr. Sanders has 5 years total experience working in logistics and financial analysis. Besides these key personnel, three other programmers and analysts will also work on this task.

### **Points of Contact**

Government points of contact (POCs)

<u>Name</u>	<u>Organization</u>	<u>Commercial Phone #</u>
MAJ Randy Moller	HQ USAF/LGSI	703-695-6730
Ms. Mary Grathwohl	HQ AFMC/SCXR	513-257-5284

SIDAC POCs

Mr. Heston Hicks	Special Projects Office	513-258-6776
Ms. Elaine Piper	Special Projects Office	513-258-6790

Synergy POCs

Ms. Susan Gantz	Synergy, Inc.	202-232-6261
Mr. Kevin McCool	Synergy, Inc.	202-232-6261